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Mine Permit Number M0490011 Mine Name Pelican Point Quarry
Operator Larson Lime Stone Company Date July 3 1998
TO _____ FROM _____

__CONFIDENTIAL __BOND CLOSURE __LARGE MAPS X EXPANDABLE
__MULTIPUL DOCUMENT TRACKING SHEET __NEW APPROVED NOI
__AMENDMENT _OTHER_____

Description YEAR-Record Number

__NOI X Incoming __Outgoing __Internal __Superceded
Soils Removed + Stored

___NOI __Incoming __Outgoing __Internal __Superceded

__NOI __Incoming __Outgoing __Internal __Superceded

__NOI __Incoming __Outgoing __Internal __Superceded

__TEXT/ 81/2 X 11 MAP PAGES __11 X 17 MAPS __LARGE MAP

COMMENTS: _____

CC: _____

Pages Replaced by 7/3/98 Response

Soils Removed & Stored

Mining operations on the site have been conducted since the 1920s. No topsoil has been saved in the past for reclamation activities because this was not standard operating procedures for the Pre-Act mining, plus little, if any, soil is available for salvage (see "Operation Plan" - Soils).

If feasible in the future, however, suitable soil material shall be removed and stored in a stable condition where practical so as to be available for reclamation in future operations.

As explained above, no soils have been stored for reclamation due to early operations (Pre-Act) when this practice was not common. Moreover, no disturbance to topsoil will be implemented in the 10-year mine plan [see Dwg. 647-4(f)]. However, if and when disturbance is made to topsoil or other material that has the potential to be salvaged and used for final reclamation, the following parameters will be analyzed to determine suitability of material.

OPERATIONS PLAN

Public Health and Safety

Larson Limestone Company will minimize the hazards for public safety and welfare during operations. Methods to minimize hazards shall include but not be limited to the: 1) closing or guarding of shafts and tunnels to prevent unauthorized or accidental entry in accordance with MSHA regulations, 2) disposal of trash, scrap metal and wood, and extraneous debris, 3) plugging or capping of drill, core, or other exploratory holes as set forth in Rule R647-4-108, 4) posting of appropriate warning signs in locations where public access to operations is readily available, 5) construction of berms, fences and/or barriers above highwalls or other excavations when required by the DOGM.

IMPACT ASSESSMENT

Highwalls

As previously mentioned in the "IMPACTS" section, LLC has not disturbed any acreage that had not been already disturbed by previous operations at the mine site. The general area has several highwalls, most of which have not been disturbed or used by LLC [see Disturbed Areas map Dwg. R647-4(E)]. Moreover, LLC has a 10-year mine plan that shows be mining in a relatively small area [see Dwgs. R647-4(E) and R647-4(F)]. This area is also the site of previous mining disturbance at the base of an existing highwall. As such, the only future disturbance in the 10-year period would be to mine the existing mine pad downward 60-100 ft. This mine plan will expose more of the existing highwall in the process.

As a safety and reclamation consideration, benching has been implemented in the past according to Mine Safety & Health Administration (MSHA) specifications shown in Figure 9 [personal communications with M. Hardman (LLC) and field observations]. Although this process was implemented it posed a greater threat to public and operations safety.

Past and current mining is conducted from a natural fracture in the limestone. When benching was attempted away from this

fracture, the limestone still split away from the hillside at the fracture line, thus creating extremely unsafe working conditions for operations below the benched area. Therefore, mining was resumed once again along the fracture line in the limestone slope. MSHA evidently inspected this mining procedure and concurred that it was the safer than the benching [personal communications with M. Hardman (LLC)]. Therefore, this highwall will need to be left in place and mined in future mining operations by LLC (see also "Impact Assessment" and "Variances" sections).

Facilities to Remain of Postmining Landuse

It is anticipated that three of the building facilities will remain at the time of final reclamation for post mining land uses (see "Variances" section).

Structures and Equipment Buried

All structures and equipment (except for those mentioned above) will be removed from the site at the time of final reclamation including buildings, processing structures, conveyors, storage structions, etc. Concrete will be crushed by existing on-site equipment and sold as road base or similar product.

Impacts to Highwall Stability and Safety

As previously mentioned, the Larson Limestone Company has not disturbed any acreage that had not been already disturbed by previous operations at the mine site. Moreover, LLC has a 10-year mining plan that will only be mining in a relatively small area [see Dwgs. R647-4(E) and R647-4(F)]. This area is also the site of previous mining disturbance and is located at the base of an existing highwall. As such, the only future disturbance in the 10-year period would be to mine the existing mining pad downward 60-100 ft. This mine plan will expose more of the existing highwall in the process.

As a safety and reclamation consideration, benching has been implemented in the past according to Mine Safety & Health Administration (MSHA) specifications shown in Figure 9 [personal communications with M. Hardman (LLC) and field observations]. Although this process was previously implemented, it posed a greater threat to public and operations safety.

OMITTED 10/7/3/98 VERSION

Past and current mining is conducted from a natural fracture in the limestone. When benching was attempted away from this fracture, the limestone continued to split away from the hillside

at the same natural fracture line, thus creating extremely unsafe working conditions for operations below the benched area. Therefore, mining was resumed once again along the natural fracture line in the limestone slope. MSHA evidently inspected this mining procedure and concurred that it was the safer than the benching [personal communications with M. Hardman (LLC)].

OMITTED IN 7/3/98 RESPONSE

Other precautions used for public safety include limiting accessibility to the top of the highwalls to the public, restricting work to at least 15 ft from the toe of the highwall, placing boulders and berms to limit access, placing "warning" and "no trespassing" signs in the area.

The operations area is also guarded 24 hours a day during the months that weather permits by quarry personnel. During the winter months, when the operations are not conducted 24 hours per day, gates are closed and locked to limit access by the public.

Treatments for Reclamation

Soil Ripping

Much of the surface area will be hardened at the time of final reclamation as a result of heavy equipment in some areas, and inherit nature of the area which is close to bedrock. Soil ripping to a depth of 12 inches in some areas will be done (12 inches ripped depth may be impossible in other areas i.e. 10-yr mine plan area, so a 6 inch depth is planned). Soil ripping will relieve compaction, increase infiltration of precipitation, and decrease salts to enhance revegetation.

Fertilization

If soils or substitute soils indicate a deficiencies by laboratory analyses at the time of final reclamation, the area will be fertilized subsequent to ripping.

Soil Amendments - Topsoil Substitutes

In some areas where the surface is extremely hard and where deep ripping would be difficult (i.e. the 10-Year Mine Plan area),

composed manure will be placed over the surface at a rate of 10 tons/acre. This amendment will enhance plant establishment in the final seedbed by increasing water holding capacity, increasing organic matter, and by providing more ideal seed bed conditions.

Seeding

Seeding will be done with a seed drill using plant species that are mostly native to the area. Seeding will be done in the late Fall. A mixture of shrubs, forbs and grasses is preferred because they furnish food and cover for wildlife, control erosion and provide greater species diversity. Plant species were chosen for their: 1) ability to adapt to existing and predicted environmental extremes, 2) ease and rate of establishment, 3) availability of seed, 4) ability to meet post-mining reclamation needs, 5) deep-rooting and sod-forming characteristics, 6) ability to expedite natural plant succession (i.e. nitrogen-fixing qualities), and 7) appearance for an aesthetically appealing landscape. A species mix to be used at the time of final reclamation follows.

R647-4-112. Variances

Remaining Highwalls

In the Post-Act mining Minerals Rules, "highwalls shall be reclaimed and stabilized by backfilling against them or by benching to achieve a angle of 45 degrees or less". The Pelican Point Quarry disturbance is primarily Pre-Act. A variance will be necessary for existing highwalls to remain in this area at the time of final reclamation. The current plan assumes mining would be terminated within the 10-Year Mine Plan period, however, mining is expected to continue much longer in this area. In this case, remaining highwalls would not be an issue because nearly the entire hill would be mined. Justifications for a variance request are given below.

The quarry is the site of previous mining disturbance and active mining is located at the base of an existing Pre-Act highwall. Furthermore, to continue mining operations it will be necessary for LLC to extend or heighten the existing highwall during operations within the 10-year mining plan. The 10-Year Mine Plan describes mining activities in a relatively small area [see Dwgs. R647-4(E) and R647-4(F)]. As such, the only future disturbance

in the 10-year period would be to mine the existing mining pad downward 60-100 ft. Consequently, the mining will expose more of the existing highwall in the process. Reclamation of the highwall that will be heightened will be impossible to reclaim by benching due to the following explanations.

As a safety and reclamation consideration, benching has been implemented in the past according to Mine Safety & Health Administration (MSHA) specifications shown in Figure 9. Although this process was previously implemented, it posed a greater threat to public and operations safety. Past and current mining is conducted from a natural fracture in the limestone. When benching was attempted away from this fracture, the limestone continued to split away from the hillside at the same natural fracture line, thus creating extremely unsafe working conditions for operations below the benched area. Therefore, mining was resumed once again along the natural fracture line in the limestone slope. MSHA evidently inspected this mining procedure and concurred that it was safer than the benching (for additional information, refer to "Impact Assessment" and "Reclamation Plan" of this document).

With minor exceptions, the postmining land use will therefore remain consistent with its use historically -- which will be wildlife habitat with limited grazing of domestic livestock. The operator shall leave the mine site area in a condition which is capable of supporting the postmining land use.

The exception to the area being returned to wildlife habitat and limited grazing will be 3 building structures and a service road to them that will remain after final reclamation. These structures include the Storage & Repair Building, the Processing Building and the High Grade Storage Shed. These metal buildings are on concrete foundations and will be valuable to support the postmining land use in a variety of plausible circumstances. Listed below are several reasons these buildings should remain to support the postmining land use.

The area is zoned for "Mining & Grazing" (M&G-1) in Utah County. There is every probability the area will support both of these activities. The types of buildings that are proposed to remain following final reclamation are permitted in the M&G-1 zone to support mines, offices, equipment storage, care for keeping livestock and poultry, production of fruit and field crops, range and forestry facilities and a variety of other uses [Utah County Zoning Ordinances (1992)].

Although this plan addressed reclamation in a increment of 10 years, mining is probable for at least 50 years more than that. If this were the case the buildings would be used for future mining.

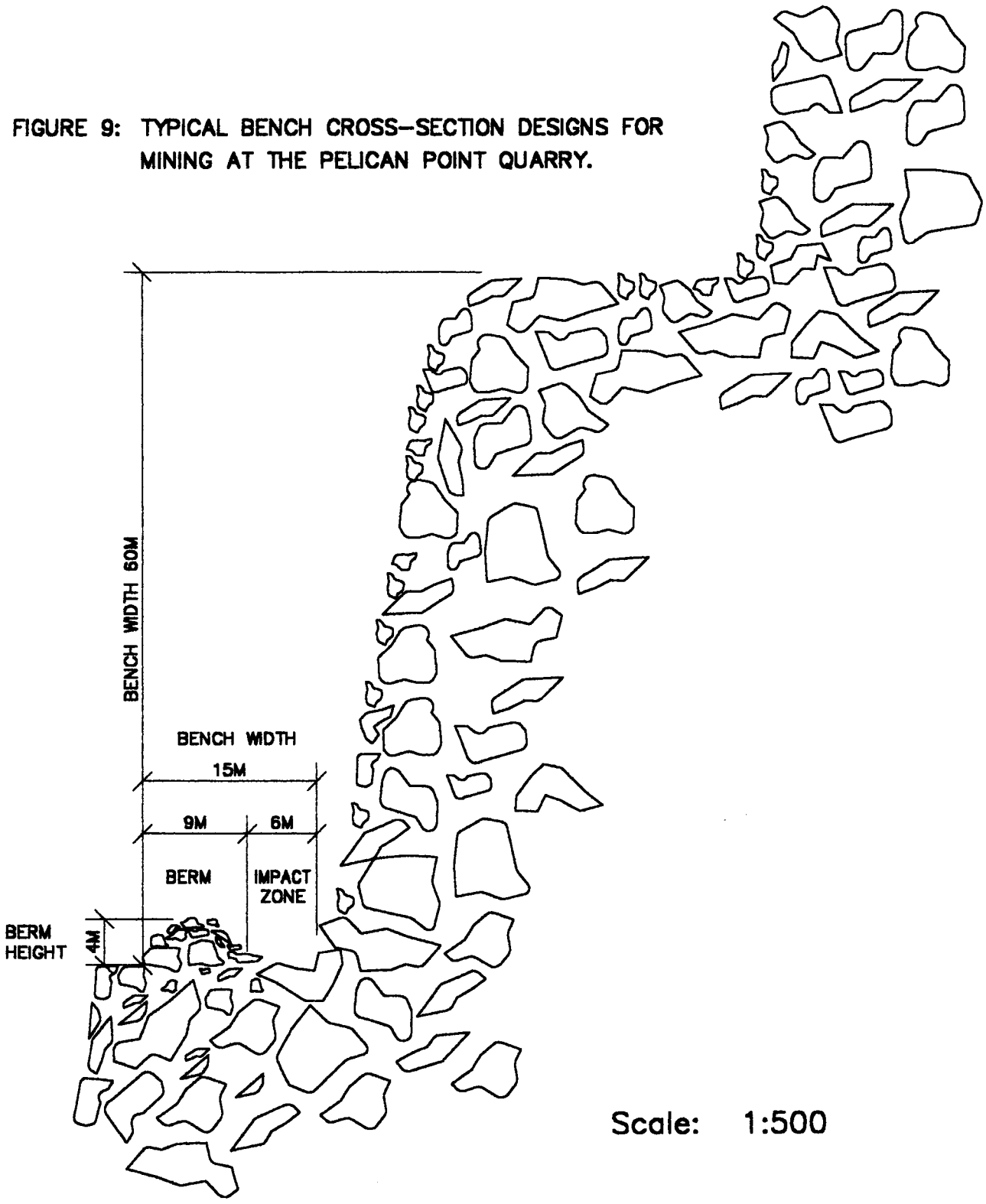
These buildings could also support livestock grazing operations by storing feed or other livestock supplies and equipment or several of the other operations mentioned above.

The buildings are located in close proximity to Highway 68 and easily approached by the access road to them.

The buildings are located on private land and considered a valuable asset for obvious reasons.

The buildings or access road pose no safety or environmental liability if they remain on-site following final reclamation. All other roads, pads and structures are planned for reclamation in the bond area at this time. If an agency or land owner later requests some of these areas to remain for specific reasons, an amendment to the plan and postmining land use will be provided to DOGM.

FIGURE 9: TYPICAL BENCH CROSS-SECTION DESIGNS FOR MINING AT THE PELICAN POINT QUARRY.



Scale: 1:500

BENCH CROSS-SECTION

MT. NEBO SCIENTIFIC, INC.
Research and Consulting Springville, Utah

The pad and fill areas where the surface facilities are located will also be sold as product because the fill is a valuable product. This material will be removed to the approximate original contour of the area to a stable configuration (Figure 10).

Once the approximate original land configuration is achieved, the Facilities Area will be ripped to a depth of 12 inches, followed by fertilization (if needed), and drill seeding.

Current Mining Area

The current mining area is the only area that was actually disturbed by LLC [although this area was also previously disturbed by early mining operation (Pre-Act)]. This area will be mined downward to a level shown on the 10-Year Mine Plan map [Dwg. 647-4(F)]. Once this elevation is met, some fines material may remain on the surface above the bedrock. The area will be ripped to a practical depth. A soil substitute material (composed manure) is available in close proximity to the quarry and will be added to the surface at a rate of 10 tons/acre. Following this application, the area will be fertilized (if necessary) and drill seeded with the seed list included in this document.

R647-4-113. Surety.

The following tables provide estimates of reclamation costs assuming that reclamation is made at the end of the 10-year planning period. The estimates are based on an end land use which continues to utilize selected buildings and roads (see tables below and "Variances" section).

BUILDING RECLAMATION COSTS

Reclamation Activity Description	Quantity	Units	Unit Price	Total Cost
STORAGE & REPAIR BLDG. Building will be left as part of the postmining last use (see "Variance" Section).				
SCALE HOUSE				
Axial setups	1	lump	$500.00	$500
Truck rental	1	day	$200.00	$200
Driver	4	hrs	[1]$33.00	$132
LOAD OUT CONVEYER				
Metal demolition	12,500	cubic ft	[2]$0.22	$2,750
Dump fee	28.5	tons	[3]$50.00	$1,425
PROCESSING BUILDING Building will be left as part of the postmining last use (see "Variance" Section).				
HIGH GRADE STORAGE SHED Building will be left as part of the postmining last use (see "Variance" Section).				
SILOS				
Metal demolition	9,600	cubic ft	$0.22	$2,112
Dump fee	3	Tons	$50.00	$150
TOTAL BUILDING RECLAMATION				$7,269

1 1998 Means Heavy Construction Cost Data - Heavy Truck Driver Trhv

2 1998 Means Heavy Construction Cost Data - Heavy Truck Driver Trhv

3 1998 Means Heavy Construction Cost Data 020 612 0100 - Bldg materials dump fees

SURETY

GRADING AND REVEGETATION RECLAMATION COSTS

Reclamation Activity Description	Quantity	Units	Unit Price	Total Cost
GRADING				
PAD FILL: Pad fill consists of a valuable product which will be sold prior to Final Reclamation (see "Reclamation" Section).				
DRAINAGE DITCHES (triangular ditch section 0.5 feet deep minimum; average end area = 11 square feet, 1,200 foot total length in 3 ditches)	490	cubic yd	[4]$4.56	$2,234
SOIL PREPARATION Areas to be revegetated include all areas outside areas to remain associated with the buildings, 26.5 acres total.				
RIPPING 13.5 acres 12" ripping depth.	21,780	cubic yd	[5]$0.81	$17,642
RIPPING 10-year mine area - 13 acres @ 6" depth	10,500	cubic yd	[6]$0.81	$8,505
MULCH 10 tons per acre	13.0	acres	$450.00	$5,850
SURFACE PREPARATION (light disk harrow & fertilizer)	26.5	acres	$350.00	$9,275
SEEDING	26.5	acres	$830.00	$21,995
TOTAL GRADING AND REVEGETATION				$65,501

4 1998 Means Heavy Construction Cost Data 022 254 0060 - excavation

5 1998 Means Heavy Construction Cost Data 022 278 2815 - Grader ripping

6 1998 Means Heavy Construction Cost Data 022 278 2815 - Grader ripping

SUMMARY OF RECLAMATION COSTS

DESCRIPTION	TOTAL COST
Building Reclamation	$7,270
Grading & Revegetation	$65,500
TOTAL DIRECT COSTS	$72,770
Mobilization (mobilization & demobilization, bonds, etc.)	$3,639
Contingency (10%)	$7,277
TOTAL COSTS	$83,686
Escalation for five years @ 2.52%	$11,830
TOTAL with 5 years inflation	**$95,516**

Treatment Areas

All disturbed areas are shown on the Facilities Area map [Dwg. 647-4(E)]. The Reclamation Treatments map [Dwg. 647-4(G)] shows the reclamation areas and treatments that will be used at the time of final reclamation. Below is a decription of these areas including treatments that will be used for final reclamation.

Surface Facilities Area

The Surface Facilities Area is an area that had been disturbed previously by operators other that LLC (Pre-Act). However, because LLC currently uses these area, the reclamation plans have been designed to include them. All operation structures except for 3 buildings that are proposed to remain for post mining land uses (see "Variances" section) will be dismantled, salvaged and hauled off-site to appropriate salvage, scrap, and disposal areas. Concrete footings, foundations and other concrete will be crushed on-site with the available processing equipment and sold as products for road base along with the other products sold at the Pelican Point Quarry.

NEW

suitable for continued use. Most roads and pads are planned for reclamation in the bond area at this time. If an agency or land owner later requests some of these areas to remain for specific reasons, an amendment to the plan and post mining land use will be provided to DOGM.

Dams and Impoundments

There are no dams nor impoundments located in the bond area. If such are constructed in the future, the operator will comply with the appropriate regulations.

With minor exceptions (see "Variances" section) the postmining land use will therefore remain consistent with its use historically -- which will be wildlife habitat with limited grazing of domestic livestock.

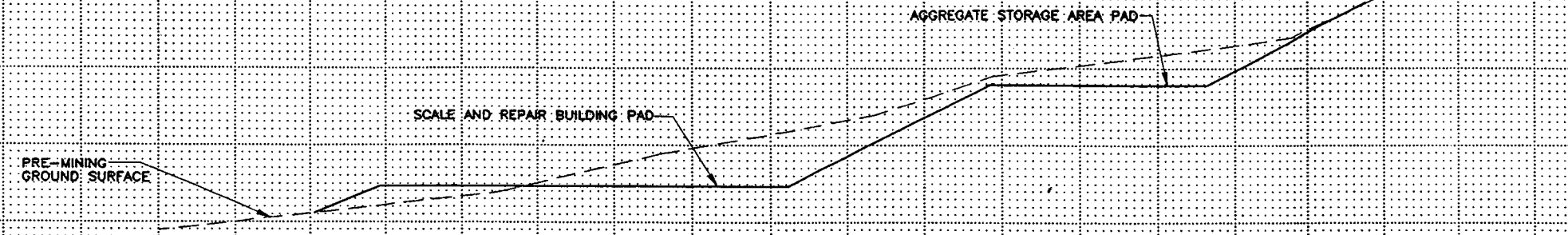
The operator shall leave the on-site area in a condition which is capable of supporting the postmining land use.

Slopes

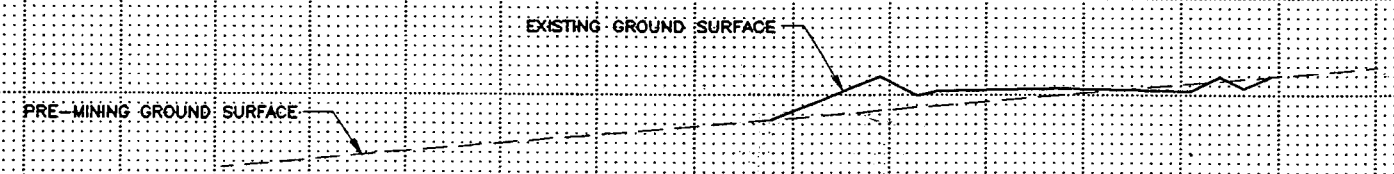
Areas will be regraded to a stable configuration and shall be sloped to minimize safety hazards and erosion while providing for successful revegetation (see the following *Treatment Areas*, "Facilities Area" and Figure 10 for more details).

Roads and Pads

On-site roads and pads shall be reclaimed when they are no longer needed for operations. When a road or pad is to be turned over to the property owner or managing agency for continuing use, the operator shall turn over the property with adequate surface drainage structures and in a condition ~~suitable for continued~~



TYPICAL PAD CROSS SECTION
1" = 40'



TYPICAL HAUL ROAD CROSS SECTION
1" = 20'

FILE NAME:
FILE DATE:
PLOT OPTIONS
PLOT IN = DWG UNITS:
PLOT AREA:
ORIGIN:
DVIEW:
XREF FILE NAME(S)

HANSEN ALLEN & LUCE INC.
CONSULTANTS ENGINEERS
Salt Lake City Utah

4/24/97 #165467 GREGORY J. POOLE REGISTERED PROFESSIONAL ENGINEER STATE OF UTAH
Registered Engineer

DESIGNED	GJP	3			
DRAFTED	SDM	2			
CHECKED		1			
DATE APRIL 24, 1997	NO.	DATE	REVISIONS	BY	APV'D.

SCALE: AS SHOWN

MT. NEBO SCIENTIFIC
Springville, Utah

LARSEN LIMESTONE COMPANY
PELICAN POINT QUARRY
TYPICAL CROSS SECTIONS

FIGURE 10 OF

12/98